

Claim 1 has been canceled without prejudice.

Claims 2, 11 and 19 have been amended. No new matter has been added.

Claims 1-20 are hereby submitted for review and reconsideration.

II. Response to 35 U.S.C. 102 Rejections

Paragraph 2

In paragraph 2 of the Office Action, the Examiner rejects claims 1-3, 6, 7 and 19 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,152,136 to Pagan (hereinafter referred to as "Pagan"). Specifically, the Examiner states that "Pagan discloses an air conduit 1, a mask opening 5, supporting arm 17, compressible structure 2 and a seating tip 10". Applicant respectfully maintains that the claims are not anticipated by Pagan, and requests that the §102 (e) rejections be withdrawn.

First, Applicant has canceled claim 1, without prejudice, and has amended claims 2 and 19 so as make them independent claims having all of the limitations previously included in claim 1. Thus, claims 2 and 19 are the currently-pending independent claims of the present application. Independent claim 2 relates to an artificial airway device comprising an air conduit extending between a proximal opening and a mask opening. When the device is in an operative position, the proximal opening remains outside of a patient and the mask opening is open to a laryngeal opening of the patient. The device also comprises a seating tip extending distally from the distal end of the airway tube. When the device is in the operative position, the seating tip is located on a pharyngeal side of a patient's cricoid. A first supporting arm extends axially from the seating tip in a shape substantially corresponding to that of a portion of the esophagus in which the seating tip is located when the device is in the operative position.

Applicant respectfully maintains that Pagan does not teach or disclose the invention as recited in independent claim 2. For example, Pagan does not teach or disclose a first supporting arm that extends axially from the seating tip in a shape substantially corresponding to that of a portion of the esophagus in which the seating tip is located when the device is in the operative position, as recited in claim 2. According to one embodiment of the present invention, the support arms 145 are preferably curved to

conform to the periform recesses of the esophagus.

By contrast, the Examiner identifies item "17" of Pagan as "a supporting arm". As described in Pagan, "the plate 10 has two parallel low walls 17 projecting from its upper surface rearwardly of the forward part 16, which serves to locate the tube 1 centrally of the plate ...". As shown in Figure 2 of Pagan, these low parallel walls 17 merely orient the tube 1 relative to the expandable plate 10. The low parallel arms 17 do not extend axially from a seating tip in a shape substantially corresponding to that of a portion of the esophagus in which the seating tip is located when the device is in the operative position, as recited in claim 2 of the present application. In addition, there are no other features of Pagan that extend axially from a seating tip in a shape substantially corresponding to that of a portion of the esophagus in which the seating tip is located when the device is in the operative position.

Furthermore, independent claim 19 of the present application relates to an artificial airway device comprising an air conduit extending between a proximal opening and a mask opening. When the device is in an operative position, the proximal opening remains outside of a patient and the mask opening is open to a laryngeal opening of the patient. The device also comprises a seating tip extending distally from the distal end of the airway tube. When the device is in the operative position, the seating tip is located on a pharyngeal side of a patient's cricoid. An angled surface extends within the mask opening. The angled surface is oriented such that, when the device is in the operative position, a plane in which the angled surface resides extends to the laryngeal opening of the patient.

Applicant respectfully maintains that Pagan does not teach or disclose the invention as recited in independent claim 19. For example, Pagan does not teach or disclose an angled surface extending within the mask opening, wherein the angled surface is oriented so that, when the device is in the operative position, a plane in which the angled surface resides extends to the laryngeal opening of the patient. According to one embodiment of the present application, an angled surface formed by the bars 143 is provided which assists in the insertion of a tube into the larynx of a patient via the airway tube. According to this embodiment, a tube threaded down the airway tube will contact the angled surface

and be turned away from the axis of the airway tube and into the larynx. By contrast, Figure 2 of Pagan illustrates that the distal end of the air tube 1 is open and has no such angled surface. Thus, Applicant respectfully maintains that independent claim 19 is not anticipated by Pagan and requests that the §102(e) rejection be withdrawn.

In summary, Applicant respectfully maintains that independent claims 2 and 19 are not anticipated by Pagan and requests that the §102(e) rejections be withdrawn. Furthermore, Applicant maintains that claims 3-18 and 20, which all depend either directly or indirectly from independent claim 2, are allowable for at least the same reasons.

Paragraph 3

In paragraph 3 of the Office Action, the Examiner rejects claims 1-4, 6-8, 11-15 and 19 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,241,956 to Brain (hereinafter referred to as "Brain"). Specifically, the Examiner states that "Brain discloses an air conduit 10, a mask opening 21 covered by bars 19 which extend both parallel and perpendicular to the axis of the tube, a compressible structure 12, support arms 26, 40 and a seating tip 14". Applicant respectfully maintains that the claims are not anticipated by Brain, and respectfully requests that the §102(b) rejections be withdrawn.

Applicant respectfully maintains that Brain does not teach or disclose the invention as recited in independent claim 2. For example, Brain does not teach or disclose a first supporting arm that extends axially from the seating tip in a shape substantially corresponding to that of a portion of the esophagus in which the seating tip is located when the device is in the operative position, as recited in claim 2. As mentioned above, according to one embodiment of the present invention, the support arms 145 are preferably curved to conform to the periform recesses of the esophagus.

By contrast, the Examiner identifies items "26 and 40" of Brain as "a supporting arm". However, item "26" of Brain refers to a "silicon rubber tube" (col. 4, lines 52-53), while item "40" of Brain refers to a "small diameter drainage tube" (col. 5, line 22). Neither of these structures extend

axially from the seating tip in a shape substantially corresponding to that of a portion of the esophagus in which the seating tip is located when the device is in the operative position, as recited in claim 2 of the present application. In addition, there are no other features of Brain that extend axially from a seating tip in a shape substantially corresponding to that of a portion of the esophagus in which the seating tip is located when the device is in the operative position.

Furthermore, Applicant respectfully maintains that Brain does not teach or disclose the invention as recited in independent claim 19. For example, Brain does not teach or disclose an angled surface extending within the mask opening, wherein the angled surface is oriented so that, when the device is in the operative position, a plane in which the angled surface resides extends to the laryngeal opening of the patient. As mentioned above, according to one embodiment of the present application, an angled surface formed by the bars 143 is provided which assists in the insertion of a tube into the larynx of a patient via the airway tube. According to this embodiment, a tube threaded down the airway tube will contact the angled surface and be turned away from the axis of the airway tube and into the larynx. By contrast, Brain discloses flexible cross-bars 21 that are "substantially parallel with the major axis of the peripheral ring 14". As shown in Figure 4, the major axis of the peripheral ring 14 defines a plane that does not extend to the laryngeal opening the patient, but that purposefully avoids extending in this direction. Thus, it is evident that any surface created by the bars 21 is also not angled so as to extend into the larynx when in the operative position. Thus, Applicant respectfully maintains that independent claim 19 is not anticipated by Brain and requests that the §102(b) rejection be withdrawn.

In summary, Applicant respectfully maintains that independent claims 2 and 19 are not anticipated by Brain and requests that the §102(b) rejections be withdrawn. Furthermore, Applicant maintains that claims 3-18 and 20, which all depend either directly or indirectly from independent claim 2, are allowable for at least the same reasons.

III. Response to Objections

With respect to claims 5, 9, 10, 16-18 and 20, the Examiner states that these claims are objected to because they depend on rejected claims, and that they would be allowable if rewritten in independent format having all of the limitations of the corresponding independent claim and any intervening claims. In response to the Examiner, Applicant maintains that, in view of the above-referenced amendments and remarks, these claims should also be deemed allowable.

Fees

Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademarks Office Deposit Account No. 11-0600.

Conclusion

In view of the aforementioned amendment and remarks, it is respectfully submitted that all claims currently pending in the above identified application are now in condition for allowance, the earliest possible notice of which is earnestly solicited. If in the Examiner's opinion the prosecution of the present application would be advanced by a telephone interview, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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Version with Markings to Show Changes Made

1. Canceled.

2. (Amended) An artificial airway device comprising:

an air conduit extending between a proximal opening and a mask opening wherein, when the device is in an operative position, the proximal opening remains outside of a patient and the mask opening is open to a laryngeal opening of the patient;

a seating tip extending distally from the distal end of the airway tube which, when the device is in the operative position, is located on a pharyngeal side of a patient's cricoid; and

[The artificial airway device of claim 1, further comprising] a first supporting arm that extends axially from the seating tip in a shape substantially corresponding to that of a portion of the esophagus in which the seating tip is located when the device is in the operative position.

11. (Amended) The artificial airway device of claim [1] 2, further comprising at least one bar extending within the mask opening.

19. (Amended) An artificial airway device comprising:

an air conduit extending between a proximal opening and a mask opening wherein, when the device is in an operative position, the proximal opening remains outside of a patient and the mask opening is open to a laryngeal opening of the patient;

a seating tip extending distally from the distal end of the airway tube which, when the device is in the operative position, is located on a pharyngeal side of a patient's cricoid; and

[The artificial airway device of claim 1, further comprising] an angled surface extending within the mask opening, wherein the angled surface is oriented so that, when the device is in the operative position, a plane in which the angled surface resides extends to the laryngeal opening of the patient.